

NAVIGATING A UAV UNDER REMOTE CONTROL AND MANUAL
CONTROL WITH THREE DIMENSIONAL FLIGHT DEPICTION

30

ABSTRACT

Navigating a UAV including receiving in a remote control device a user's selection of a GUI map pixel that represents a waypoint for UAV navigation, mapping the pixel's 35 location on the GUI to Earth coordinates of the waypoint, transmitting the coordinates of the waypoint to the UAV, reading a starting position from a GPS receiver on the UAV, piloting the UAV, under control of a navigation computer on the UAV, from the starting position to the waypoint in accordance with a navigation algorithm, and changing from piloting the UAV under control of a navigation computer on the UAV 40 to piloting the UAV under manual control. While piloting the UAV under manual control, reading from the GPS receiver a sequence of GPS data representing a flight path of the UAV, and depicting the flight of the UAV with 3D computer graphics.